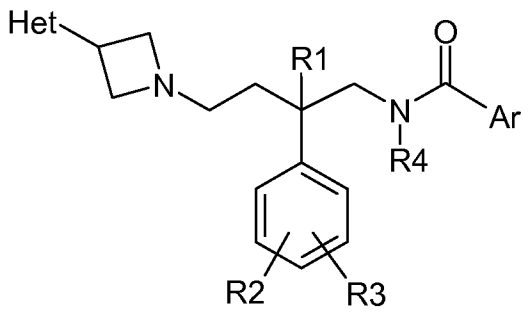
Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

1-32. (Canceled)

33. (Currently amended) A compound of the general formula (**I**),



(I)

an enantiomer thereof, or a pharmaceutically acceptable salt of the compound or enantiomer, wherein:

Het is selected from the group consisting of:

A) piperidino, wherein the piperidino is:

i) substituted with a substituent selected from the group consisting of hydroxy, hydroxyalkyl, oxo, methylthio, methylsulfinyl, methylsulfonyl, cyano, 1,3-dioxolan-2-yl, C_1-C_4 alkoxy, amino, acylamino, and (C_1-C_4 alkylsulfonyl)amino,

wherein the amino is unsubstituted or optionally mono or disubstituted with a substituent selected from the group consisting of C_1-C_4 alkyl, C_3-C_4 cycloalkyl, C_2-C_4 alkenyl, and C_2-C_4 alkynyl, and

wherein the acylamino and the (C_1-C_4 alkylsulfonyl)amino are unsubstituted or optionally N-substituted with a substituent selected from the group consisting of C_1-C_4 alkyl, C_3-C_4 cycloalkyl, C_2-C_4 alkenyl, and C_2-C_4 alkynyl;

ii) substituted with one or two fluoro atoms; or

iii) disubstituted by C_1-C_4 alkyl and/or hydroxy groups;

B) morpholino or thiomorpholino, wherein the thiomorpholino is unsubstituted or optionally substituted at its sulfur atom by one or two oxygen atoms; and

C) piperazino which is unsubstituted or optionally substituted at the 4-nitrogen atom by a substituent selected from the group consisting of C_1-C_4 alkyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, C_3-C_4 cycloalkyl, C_1-C_4 alkyl sulfonyl, and C_1-C_4 acyl;

R1 is hydrogen;
R2 is fluoro attached at the 4-position;
R3 is hydrogen;
R4 is selected from the group consisting of C_1-C_4 alkyl, C_3-C_4 cycloalkyl, C_2-C_4 alkenyl, and C_2-C_4 alkynyl; and

Ar is phenyl substituted at its 3- and 5-positions by substituents independently selected from the group consisting of halogen, C_1-C_4 alkyl, C_1-C_4 alkoxy, cyano, and nitro;

wherein one or more of the hydrogen atoms of the alkyl, cycloalkyl, alkenyl, alkynyl, and alkoxy groups may be optionally substituted for a fluorine atom.

34. (Previously presented) The compound according to claim 33, wherein R4 is C_1-C_4 alkyl.

35. (Previously presented) The compound according to claim 33, wherein the heterocyclic ring Het is connected to the rest of the molecule at one of the nitrogen atoms of the Het ring.

36. (Previously presented) The compound according to claim 33, wherein R4 is methyl.

37. (Previously presented) The compound according to claim 33, wherein the compound is an S-enantiomer.

38. (Previously presented) The compound according to claim 33 selected from the group consisting of:

3,5-Dibromo-*N*-[(2*S*)-2-(4-fluorophenyl)-4-(3-morpholin-4-ylazetidin-1-yl)butyl]-*N*-methylbenzamide;

N-[2-(4-Fluorophenyl)-4-(3-thiomorpholin-4-ylazetidin-1-yl)butyl]-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

3-Fluoro-*N*-[(2*S*)-2-(4-fluorophenyl)-4-(3-morpholin-4-ylazetidin-1-yl)butyl]-*N*-methyl-5-(trifluoromethyl)benzamide;

N-[4-[3-(1,4-Dioxa-8-azaspiro[4.5]dec-8-yl)azetidin-1-yl]-2-(4-fluorophenyl)butyl]-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

N-{(2*S*)-2-(4-Fluorophenyl)-4-[3-(4-fluoropiperidin-1-yl)azetidin-1-yl]butyl}-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

N-{(2*S*)-2-(4-Fluorophenyl)-4-[3-(4-hydroxypiperidin-1-yl)azetidin-1-yl]butyl}-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

3,5-Dichloro-*N*-[(2*S*)-2-(4-fluorophenyl)-4-(3-morpholin-4-ylazetidin-1-yl)butyl]-*N*-methylbenzamide;

3,5-Dibromo-*N*-{(2*S*)-2-(4-fluorophenyl)-4-[3-(4-hydroxypiperidin-1-yl)azetidin-1-yl]butyl}-*N*-methylbenzamide;

3-Bromo-*N*-[(2*S*)-2-(4-fluorophenyl)-4-(3-morpholin-4-ylazetidin-1-yl)butyl]-5-iodo-*N*-methylbenzamide;

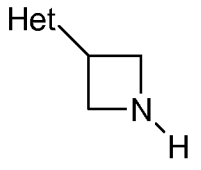
N-{2-(4-Fluorophenyl)-4-[3-(1-oxidothiomorpholin-4-yl)azetidin-1-yl]butyl}-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

N-{2-(4-Fluorophenyl)-4-[3-(4-oxopiperidin-1-yl)azetidin-1-yl]butyl}-*N*-methyl-3,5-bis(trifluoromethyl)benzamide;

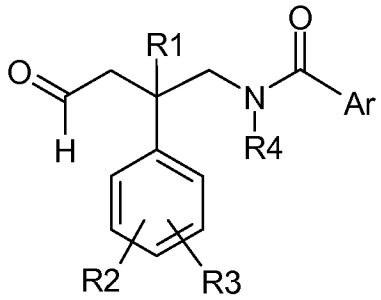
or an enantiomer thereof, a salt of the compound, or a salt of the enantiomer.

39. (Previously presented) A process for preparing a compound according to claim 33, wherein the process comprises a step selected from the group consisting of:

a) reacting a compound of the formula (III) with a compound of the formula (IV) under reactive alkylation conditions:



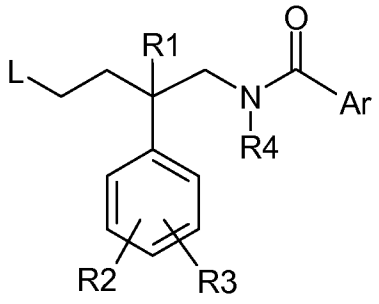
(III)



(IV)

wherein R1-R4, Het, and Ar are as defined in claim 33, to form an N-C bond between the nitrogen atom of the azetidine group of the compound of formula (III) and the carbon atom of the aldehyde group of the compound of formula (IV);

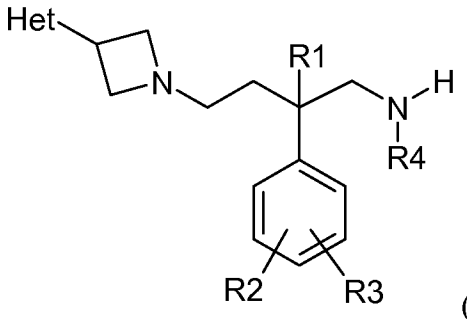
b) reacting a compound of the formula (III) with a compound of the formula (V) under alkylation conditions:



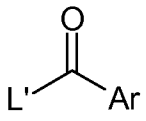
(V)

wherein R1-R4, Het, and Ar are as defined in claim 33, and L is a leaving group, to form an N-C bond between the nitrogen atom of the azetidine group of the compound of formula (III) and the carbon atom of the compound of formula (V) that is adjacent to the L group; and

c) reacting a compound of the formula (VI) with a compound of the formula (VII):



(VI)



(VII)

wherein R1-R4, Het and Ar are as defined in claim 33, and L' is a leaving group;

wherein the process optionally further comprises one or more of the following steps:

i) protecting another functional group in any of compounds (III)-(VII) prior to reaction, and removing the protecting group after reaction;

ii) oxidizing an oxidizeable atom; and

iii) forming a pharmaceutically acceptable salt.

40. (Previously presented) A compound selected from the group consisting of:
[2-(4-Fluorophenyl)-4-(3-thiomorpholin-4-ylazetidin-1-yl)butyl]methylamine;
[(2*S*)-2-(4-Fluorophenyl)-4-(3-morpholin-4-ylazetidin-1-yl)butyl]methylamine;
1-{1-[3-(4-Fluorophenyl)-4-(methylamino)butyl]azetidin-3-yl}piperidin-4-ol;
[4-[3-(1,4-Dioxa-8-azaspiro[4.5]dec-8-yl)azetidin-1-yl]-2-(4-fluorophenyl)butyl]methylamine;
3,5-Dichloro-*N*-[(2*S*)-2-(4-fluorophenyl)-4-oxobutyl]-*N*-methylbenzamide;
3,5-Dibromo-*N*-[(2*S*)-2-(4-fluorophenyl)-4-oxobutyl]-*N*-methylbenzamide; and

3-Bromo-*N*-[(2*S*)-2-(4-fluorophenyl)-4-oxobutyl]-5-iodo-*N*-methylbenzamide;
or an enantiomer of the compound, a salt of the compound, or a salt of the enantiomer.

41. (Previously presented) A pharmaceutical formulation comprising as active ingredient a therapeutically effective amount of a compound according to claim 33, wherein the compound is a single enantiomer, a racemate, or a mixture thereof, and wherein the compound is in the form of a free base, a pharmaceutically acceptable salt, a solvate of the free base, or a solvate of the salt, optionally in association with one or more diluents, excipients, or inert carriers.

42. (Currently amended) A method of [~~preventing or~~] treating [~~a medical disorder selected from the group consisting of crespiratory, cardiovascular, neuro,~~] pain, [~~oncology and gastrointestinal disorders,~~] the method comprising administering an effective amount of a compound according to claim 33 to a patient in need thereof, wherein the compound is a single enantiomer, a racemate, or a mixture thereof, and wherein the compound is in the form of a free base, a pharmaceutically acceptable salt, a solvate of the free base, or a solvate of the salt.

43. (Currently amended) [~~The method according to claim 42, wherein the disorder is selected~~] A method for treating a disorder selected from the group consisting of gastrointestinal hypermotility, gastric asthma, Crohn's disease, gastric emptying disorders, ulcerative colitis, irritable bowel syndrome, inflammatory bowel disease, emesis, gastric motility disorders, urinary incontinence, and gastro-esophageal reflux disease (GERD), the method comprising administering an effective amount of a compound according to claim 33 to a patient in need thereof, wherein the compound is a single enantiomer, a racemate, or a mixture thereof, and wherein the compound is in the form of a free base, a pharmaceutically acceptable salt, a solvate of the free base, or a solvate of the salt.

44. (Currently amended) The method according to claim [~~42,~~] 43, wherein the disorder is irritable bowel syndrome.

45. (Currently amended) The method according to claim [~~42,~~] 43, wherein the disorder is inflammatory bowel disease.

46. (Currently amended) The method according to claim [~~42,~~] 43, wherein the disorder is urinary incontinence.

47. (Currently amended) A method for the [~~prevention or~~] treatment of a medical disorder selected from the group consisting of asthma, allergic rhinitis, [~~pulmonary, cough, cold, inflammation,~~] chronic obstructive pulmonary disease, airway reactivity, urticaria, hypertension, rheumatoid arthritis, [~~edema, angiogenesis, pain, migraine, tension headache, psychoses,~~] depression, anxiety, [~~Alzheimer's disease, schizophrenia, Huntington's disease, bladder hypermotility, urinary incontinence, eating disorder, manic depression, substance dependence, movement disorder, cognitive disorder,~~] and obesity, [~~stress disorders, micturition disorders, mania, hypomania and aggression, bipolar disorder, cancer, carcinoma, gastrointestinal hypermotility, gastric asthma, Crohn's disease, gastric emptying disorders, ulcerative colitis, irritable bowel syndrome, inflammatory bowel disease, emesis, gastric motility disorders, and gastro-esophageal reflux disease (GERD),~~] the method comprising administering an effective amount of a compound according to claim 33 to a patient in need thereof, wherein the compound is a single enantiomer, a racemate, or a mixture thereof, and wherein the compound is in the form of a free base, a pharmaceutically acceptable salt, a solvate of the free base, or a solvate of the salt.